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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HICKMAN PALERMO TRUONG & BECKER, LLP
2055 GATEWAY PLACE
SUITE 550
SAN JOSE, CA 95110

EXAMINER

YALEW, FIKREMARIAM A

ART UNIT PAPER NUMBER

2136

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/052,279	Applicant(s) PELLACURU ET AL.	
	Examiner Fikremariam Yalew	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>Jan 17 2002</u> . | 6) <input type="checkbox"/> Other: _____ |

AT

DETAILED ACTION

1. Claims 1-34 have been examined

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 13, 18-20, 21-23, 24-26, 33 and 34 are rejected under 35

U.S.C. 102(e) as being anticipated by Fangman. (US patent 6,687,245 B2)

4. As per claims 1, 18-19, 20, 25, 26, 32, 34: Fangman discloses a method/product/apparatus for facilitating Internet security protocol (IPsec) based communications through a device that employs address translation in a telecommunications network, the method comprising the steps of:

receiving a first electronic message from a first node, wherein the first

electronic message is based on IPsec and is associated with a first

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identifier;(col 3 lines 65 through line 2 and col 6 lines 30-34 and column 9 lines 24-34 and col 24 lines 6- 26 col 18 lines 1-39)(l.e. the examiner interpreted 120A as the first node)

generating a value based on the first identifier;(col 4 lines 1-12)

sending the first electronic message to a second node;(col 18 lines 1-39)(the examiner interpreted telephone device as the second node)

receiving a second electronic message from the second node, wherein the second electronic message is based on Ipsec and is associated with a second identifier that is different than the first identifier, wherein the second identifier is generated based on the first identifier;(column 9 lines 24-34 and col 24 lines 6- 26 and col 18 lines 1-39)

determining whether the second electronic message is directed to the first node based on the value and the second identifier; and(col 18 lines 1-39) ;(col 18 lines 1-39)(the examiner interpreted the SG performs as NAT)

sending the second electronic message to the first node when the second electronic message is determined to be directed to the first node.(col 18 lines 1-39)

5. As per claim 2: Fangman discloses a method as recited in claim 1, further comprising the steps of:

receiving a third electronic message from a third node, wherein the third electronic message is based on Ipsec and is associated with a third identifier;(col

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6 lines 1-46 and col 8 lines 14-24)(i.e. the examiner interpreted telephones 120B like third node)

generating an additional value based on the third identifier;(col 18 lines 1-39)

sending the third electronic message to the second node; (col 18 lines 1-3)

wherein the step of receiving comprises receiving, after sending the first electronic message and the third electronic message to the second node, the second electronic message from the second node, wherein the second electronic message is based on Ipsec and is associated with the second identifier that is different than the first identifier and the third identifier;(col 6 lines 30-34 and column 9 lines 24-34 and col 24 lines 6- 26 and col 18 lines 1-39 and)

determining whether the second electronic message is directed to the third node base on the additional value and the second identifier(col 18 lines 1-39); and when the second electronic message is determined to be directed to the third node, sending the second electronic message to the third node.(col 18 lines 1-39)

6. As per claim 21-23: Fangman discloses a method wherein the device employs network address translation (NAT), dynamic address (NAT) and network address port translation NAPT.(col 8 line 24-50)

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7. As per claims 24,33: Fangman discloses a method for facilitating Internet security protocol (Ipsec) based communications through a device that employs address translation in a telecommunications network, the method comprising the steps of:

receiving a first electronic message from a first node, wherein the first electronic message is based on Ipsec and is associated with a first identifier, wherein the first identifier is generated based on a second identifier and the first identifier is different than the second identifier;(col 16 lines 27-64)

sending the first electronic message to a second node;(col 18 lines 1-39)

receiving a second electronic message from the second node, wherein the second electronic message is based on Ipsec and is associated with the second identifier',(col 9 lines 24-34 and col 18 lines 1-39).

generating a value based on the second identifier;(col 16 lines 44-47)

determining whether the second electronic message is directed to the first node based on the value and the first identifier(col 16 lines 27-44); and

sending the second electronic message to the first node when the second electronic message is determined to be directed to the first node.(col 9 lines 24-34 and col 18 lines 1-39 and col 16 lines 27-44)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3-9,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fangman in view of Jobst et al (herein after referred as Jobst) US Patent 6,707,915 B1.

10. As per claims 3,7,8,9,27: Fangman discloses claim 1 as recited above. He doesn't explicitly teach a method wherein the step of generating the value comprises the step of generating the value based on the first identifier and a specified scheme, and wherein the second identifier is generated based on the first identifier and the specified scheme. However Jobst teaches a method wherein the step of generating the value comprises the step of generating the value based on the first identifier and a specified scheme, and the second identifier is generated based on the first identifier and the specified scheme. (col 7 line 23 through line 27 and col 10 line 50 through col 11 line 15). Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to employ the method of Jobst with the system of Fangman in order to provide secure IPsec communication through devices that employ address translation.

11. As per claim 4, 5,6: Fangman discloses claim 1 as recited above. He doesn't teach explicitly a method wherein the specified scheme produces a fixed

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length output, the specified scheme is a hash algorithm, and the hash algorithm is a MD5 one-way function and the hash value algorithm. However Jobst teaches a method wherein the specified scheme produces a fixed length output, the specified scheme is a hash algorithm, the hash algorithm is a MD5, one-way function and the hash value algorithm. (col 8 lines 50-59).Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to employ the method of Jobst with the system of Fangman in order to provide secure IPsec communication through devices that employ address translation.

12. Claims 10,12,28,29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fangman in view of Sharman et.al (herein after referred as Sharman) US Pub No 2003/0031151 A1.

13. As per claims 10 and 12:Fangman discloses claim 1 as recited above. He doesn't explicitly teach a method wherein the first identifier is a first IPsec security parameter index and the second identifier is a second Ipsec security parameter index and the first electronic message is based on Ipsec Encapsulation Security Payload (ESP), the second electronic message is based on Ipsec ESP. However Sharman teaches a method wherein a method wherein the first identifier is a first IPsec security parameter index and the second identifier is a second Ipsec security parameter index and the first electronic message is based on Ipsec Encapsulation Security Payload (ESP), the second electronic message is based on Ipsec ESP [0025 and 0030].Therefore it would

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be obvious to one having ordinary skill in the art at the time the invention was made to employ the method of Sharman with the system of Fangman in order to secure IPsec communication between network entities.

14. As per claim 28: Fangman discloses claim 1 as recited above. He does not explicitly teach a method wherein the value is a hash value, the first identifier is a first Ipsec Security Parameter Index (SPI), the second identifier is a second Ipsec SPI, and the step of generating the second Ipsec SPI comprises the step of generating, prior to receiving the first electronic message, the second Ipsec SPI based on the hash value. However Sharma teaches a method wherein the value is a hash value, the first identifier is a first Ipsec Security Parameter Index (SPI), the second identifier is a second Ipsec SPI, and the step of generating the second Ipsec SPI comprises the step of generating, prior to receiving the first electronic message, the second Ipsec SPI based on the hash value.[0030,0062-0063].Therefore it would be obvious to one having ordinary skill in the art at the time to employ the method of Sharman with the system of Fanguman in order to secure Ipsec communication between network entities.

15. As per claim 29: Fangman and Sharma discloses claim 28 as recited above. Furthermore Sharma teaches a method wherein the first Ipsec SPI is a first randomly generated fixed length value and the step of generating the second Ipsec SPI comprises the step of generating the second Ipsec SPI based on at

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least a first portion of the hash value and a second portion of a second randomly generated fixed length value. . [0030,0062-0063].

16. Claims 11,14-17,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over: Fangman in view of Brustoloni (herein after referred as Brustoloni) US Patent 6886103 B1.

17. As per claim 11: Fangman discloses claim 1 as recited above. He doesn't explicitly disclose wherein the first electronic message is based on Ipsec tunnel mode and the second electronic message is based on Ipsec tunnel mode. However Brustoloni teaches the first electronic message is based on Ipsec tunnel mode and the second electronic message is based on Ipsec tunnel mode. (col 6 lines 40-45). Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to employ the method of Brustoloni with the system of Fangman in order to provide end-to-end security between the nodes at which packet is encapsulated and decapsulated.

18. As per claims 14,15 and 16:Fangman discloses claim 1 as recited above. He doesn't explicitly disclose a method further comprising the steps of: when the second electronic message is determined to be directed to the first node, creating an association between the first identifier and the second identifier; and storing the association in a table. However, Brustoloni teaches a method further comprising the steps of: when the second electronic message is determined to

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be directed to the first node, creating an association between the first identifier and the second identifier; and storing the association in a table (col 6 line 57 through col 7 line 14 and col 7 line col 8 line 7). Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to employ the method of Brustoloni with the system of Fangman in order to secure Ipsec communication between the nodes.

19. As per claim 17:Fangman and Bristoloni discloses claim 16 as recited above. Furthermore Bristoloni teaches method further comprising the steps of: receiving a third electronic message from the second node, wherein the third electronic message is based on Ipsec and is associated with the second identifier; and determining that the third electronic message is directed to the first node based on the association.(col 7 line 34-50).

20. Claims 30,31 are rejected under 35 U.S.C 103(a) as being unpatentable over Fangman in view of Jobst et al(US Patent No 6,707,915 B1) in further view of Sharma et al.(US Pub.No 2003/0031151 A1) .

21. As per claims 30,31 Fangman discloses a method for facilitating Internet security protocol (IPsec) based communications through a device that employs address translation in a telecommunications network, the method comprising the steps of:

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receiving a first electronic message from a first node, wherein the first electronic message is based on IPsec and is associated with a first identifier;(col 3 lines 65 through line 2 and col 6 lines 30-34 and column 9 lines 24-34 and col 24 lines 6- 26 col 18 lines 1-39)(I.e. the examiner interpreted 120A as the first node)

generating a value based on the first identifier;(col 4 lines 1-12)

sending the first electronic message to a second node;(col 18 lines 1-39)(the examiner interpreted telephone device as the second node)

receiving a second electronic message from the second node, wherein the second electronic message is based on Ipsec and is associated with a second identifier that is different than the first identifier, wherein the second identifier is generated based on the first identifier;(column 9 lines 24-34 and col 24 lines 6-26 and col 18 lines 1-39)

determining whether the second electronic message is directed to the first node based on the value and the second identifier; and(col 18 lines 1-39) ;(col 18 lines 1-39)(the examiner interpreted the SG performs as NAT)

sending the second electronic message to the first node when the second electronic message is determined to be directed to the first node.(col 18 lines 1-39).

Jobst teaches a method wherein the step of generating the value comprises the step of generating the value based on the first identifier and a specified scheme, and the second identifier is generated based on the first

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identifier and the specified scheme. (col 7 line 23 through line 27 and col 10 line 50 through col 11 line 15).

The combination of Frangman and Jobst doesn't teach Security Parameter index. However, Sharman teaches a method wherein the first Ipsec SPI is a first randomly generated fixed length value and the step of generating the second Ipsec SPI comprises the step of generating the second Ipsec SPI based on at least a first portion of the hash value and a second portion of a second randomly generated fixed length value. Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to employ the method of Frangman and Jobst with the system of Sharman in order to secure Ipsec communication between nodes through NAT.

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fikremariam Yalew whose telephone number is 571-272-3852. The examiner can normally be reached on 8-5.

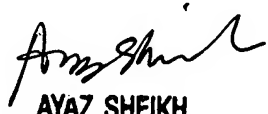
24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fikremariam Yalew
09/28/05

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AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100